

Preliminary



## KEY FEATURES

- Latest and Powerful Intel® Atom® x6000E Processor
- Fan-less and Rugged Design, Wide Temperature Operation (-40 °C to 70 °C)
- 6-36VDC Wide Range Power Inputs
- Most Flexible IOs and Expansion for Industrial Applications
- Intel® TCC and TSN Support for Real-Time Computing
- DIN Rail & Wall Mount Options

## SPECIFICATIONS

### System Core

|           |                                                                                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Processor | Intel® Elkhart Lake SoC Processors<br>iEP-5000G (x6425RE, QC, 1.9GHz, 12W)<br>iEP-5001G (x6414RE, QC, 1.5GHz, 9W)<br>iEP-5002G (x6212RE, DC, 1.2GHz, 6W) |
| Video     | 1 x HDMI 2.0b, 1 x VGA                                                                                                                                   |
| Memory    | 2 x DDR4 3200MHz SO-DIMM, up to 32GB (In-Band ECC)                                                                                                       |

### I/O Interface

|                 |                                                                              |
|-----------------|------------------------------------------------------------------------------|
| Ethernet        | 3 x 1GbE*                                                                    |
| PoE (Option)    | 2 x PoE** (Intel I210AT, Option)                                             |
| Serial Port     | 3 x COM (RS-232/422/485 BIOS select)                                         |
| USB             | 2 x USB 3.2 Gen1<br>2 x USB 2.0                                              |
| Digital I/O     | 4DI/4DOs                                                                     |
| Audio           | 1 x Mic in<br>1 x Line out                                                   |
| CANBus (Option) | 1 x CANBus connector supports up to<br>2 CANBus devices via additional cable |

### Expansion

|                      |                                                                                                                                                                                                                                                    |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SIM                  | 1 x External SIM card socket for 4G LTE or 5G module                                                                                                                                                                                               |
| RF& Antenna (Option) | M.2 Wi-Fi 5 module supports IEEE 802.11 a/b/g/n/ac + BT 5.1 (Option)<br>M.2 Wi-Fi 6E module supports IEEE 802.11 a/b/g/n/ac/ax + BT 5.2 (Option)<br>2 x 4G LTE antenna + 2 x Wi-Fi antenna (Option)<br>4 x 5G antenna + 2 x Wi-Fi antenna (Option) |
| M.2 Socket           | 1 x M.2 Key E Socket (2230) for Wi-Fi module<br>1 x M.2 Key B Socket (3042/3052) for 4G LTE module / 5G module                                                                                                                                     |

### Manageability / Security

|               |                                   |
|---------------|-----------------------------------|
| Manageability | WDT, Intel® In-Band Manageability |
| Security      | TPM2.0                            |

### Power Supply

|                           |                                                                                      |
|---------------------------|--------------------------------------------------------------------------------------|
| DC Input                  | 6-36 VDC, 80V Surge Protection<br>Supports Latch Adaptor                             |
| AC to DC Adaptor (Option) | AC input 100-240Vac, 1.5A 50-60Hz, DC output 19V, 3.42A,<br>65W Adaptor (Latch type) |

### Storage Device

|               |                                                             |
|---------------|-------------------------------------------------------------|
| SD Slot       | 1 x Micro SD card slot (SD Card specification version 3.01) |
| SATA (Option) | 1 x 2.5" 9.5mm SATA3 HDD or SSD                             |
| M.2 Socket    | 1 x M.2 Key M Socket (2280) with PCIe2/SATA3 for Storage    |

### Mechanical

|            |                                                 |
|------------|-------------------------------------------------|
| Dimensions | 58mm (W) x 125mm (D) x 157mm (H)                |
| Indicator  | 1 x SATA / NVMe Storage LED, 1 x Wi-Fi / BT LED |
| Function   | 1 x Power Button, 1 x Clear CMOS Button         |
| Net Weight | 1.3kg                                           |
| Mounting   | DIN-Rail or Wall mounting                       |

### Environmental

|                       |                                                   |
|-----------------------|---------------------------------------------------|
| Operating Temperature | -40°C ~ 70°C (-40°F ~ 158°F)                      |
| Storage Temperature   | -40°C ~ 85°C (-40°F ~ 185°F)                      |
| Humidity              | ~95% @ 40°C (non-condensing)                      |
| Vibration             | Operating: 5 Grms, 5-500 Hz, 3 axes with SSD      |
| ESD                   | Contact +/- 8 KV, Air +/- 15 KV                   |
| Shock                 | Operating 50 G, half sine 11 ms duration with SSD |
| EMC                   | CE and FCC Class A (EN61000-6-4/-2)               |
| Safety                | UL, CB                                            |

### Add-on Feature / OS Support

|                      |                              |
|----------------------|------------------------------|
| Real-Time Enablement | TSN, TCC support under YOCTO |
| OS Support           | Windows 10, Linux            |

| Order Information | iEP-5000G-000/<br>iEP-5001G-000/<br>iEP-5002G-000                | iEP-5000G-001   | iEP-5000G-002   |
|-------------------|------------------------------------------------------------------|-----------------|-----------------|
| 2.5" Storage      | Build to Order                                                   | N/A             | Build to Order  |
| Wifi/BT           | Support by additional 4G/LTE Kit<br>Support by additional 5G Kit |                 |                 |
| 4G/LTE or 5G      | N/A                                                              | N/A             | N/A             |
| PoE               | N/A                                                              | Default Support | N/A             |
| CANBus            | N/A                                                              | N/A             | Default Support |

\* Current FW and driver may change in the future.

\*\*iEP-5000G-001 operating temp. and power delivery spec TBD